

REQUEST FOR RECONSIDERATION

Claims 1-20 remain active in this application.

Applicants wish to thank Examiner Bernshtenyn for his communication date April 7, 2010 noting that the official action of March 1, 2010 should be treated as a non-final rejection, to which applicants respond as follows:

The claimed invention is directed to a positive photosensitive resin.

Electrode overcoatings formed from positive photosensitive resin materials are used in the preparation of display devices such as thin film transistors, liquid crystal display devices and organic EL devices. Performance characteristics in terms of heat resistance, solvent resistance, baking resistance, transparency, substrate adhesion, storage stability, processing margin, resolution, sensitivity, and/or reliability are important as well as prevention from contamination of a liquid crystal compound. Photosensitive resins which address these aims are sought.

The claimed invention addresses this problem by providing a positive photosensitive resin composition comprising (A) an alkali-soluble resin comprising at least one of **N-cyclohexylmaleimide, N-methylmaleimide and N-ethylmaleimide**, having a Mn of 2,000-20,000, (B) a 1,2-quinone diazide of a trisphenol and (C) a crosslinking agent containing epoxy substituted carbocycles. Applicants have discovered that selection of an alkali-soluble resin comprising specific N-substituted maleimide compounds with 1,2-quinone diazide compounds as claimed with a cross linking agent provides for a useful positive photoresist. Such a photoresist is nowhere disclosed or suggested in the cited art of record.

The rejection of claims 1-20 under 35 U.S.C. § 103(a) over Takagi et al. (JP 2003-195501) in view of Watanabe et al. (U.S. Patent 6,746,812) and Suwa et al. U.S 6,593,043 or CN 135635 is respectfully traversed.

The cited art of record fails to disclose an alkali-soluble resin in which the N-substituted maleimide is at least one of **N-cyclohexylmaleimide, N-methylmaleimide and N-ethylmaleimide**.

Page 4 of the Official Action characterizes JP '105 as disclosing an alkali-soluble resin comprising 50 mol% of N-substituted maleimide and 1,2-quinone diazide, and at least one crosslinking agent.

Watanabe et al. has been cited for a description of the claimed N-substituted maleimide monomer as a component of an alkali-soluble resin and in view of a functional equivalents, it would have been obvious to substituted the N-substituted maleimide monomer of Watanabe et al into the alkali-soluble resin of Tagaki et al.

Watanabe et al. describes that N-maleimides may be used as component (2) of a **fourth fluorine-containing polymer** (column 74, lines 64-67). Component (1) is an addition polymerizable monomer having a fluoro aliphatic group (column 75, lines 16-19) and component (3) is an addition polymerizable monomer which has an acidic hydrogen atom bonded to a nitrogen atom (column 77, lines 63-66). There is no description of the fourth-fluorine containing polymer as being an alkali-soluble resin.

The fourth-containing polymer is merely a component to a positive type photosensitive composition for infrared laser which comprises (a) a light absorber or heat generator, (b) an alkaline aqueous solution-soluble resin, and (c) a fluorine-containing polymer. The fluorine-containing polymer is believed to form a dry coating on a support which comes up to the surface of the positive type lithographic printing plate material (column 8, lines 55-58) and is separate from the alkaline aqueous solution soluble resin (b). The N-substituted maleimides are **not a component of an alkali-soluble resin**, but rather of a fluorine-containing polymer such that it would not have been obvious to substitute the specific N-substituted maleimides for the N-4-hydroxy(phenyl) maleimide of Takagi et al.

How can it be consider obvious to use a component of a fluorine containing resin as a component of an alkaline soluble resin when it is not used as such in the cited art?

Suwa et al. has been cited for disclosure of a quinone diazide core compound of TrisP-HAP, TrisP-PA. The reference fails to disclose or suggest an alkali-soluble resin comprising at least one of **N-cyclohexylmaleimide, N-methylmaleimide and N-ethylmaleimide.**

CN '635 has not been cited in the text of the Office Action but appears to have been cited for a disclosure of a trisphenol diazide compound as claimed. There is no disclosure or suggestion of an alkali-soluble resin comprising at least one of N-cyclohexylmaleimide, N-methylmaleimide and N-ethylmaleimide.

As the cited art of record fails to disclose or suggest an N-substituted maleimide monomer in an alkali-soluble resin, the claimed invention is clearly not rendered obvious from these references and accordingly withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

Applicants submit this application is now in condition for allowance and an early notification of such action is earnestly solicited.

Respectfully submitted,

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